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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/711,702  
Filing Date: September 30, 2004  
Appellant(s): KAWAKAMI, TATSUYA

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James A. Deland  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed November 6, 2009 appealing from the Office action mailed July 8, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments after Final**

The Appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of claimed subject matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

The following is a listing of the evidence relied upon in the rejection of claims under appeal.

Reissue Appl. 11389658	Shahana	Filed March 22, 2006
EP 1 134 158 A2	Shahana	September 9, 2001

**(9) Grounds of rejection**

The following grounds of rejection are applicable to the appealed claims:

- (a) Claims 25 and 26 are rejected under 35 U.S.C. 112, 1<sup>st</sup> ¶, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

New claim 25 recites “when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) extends at least in part in a vertical direction.” The instant functional limitation is unsupported by the application as filed. See MPEP § 2163.01.

A review of the record shows that Appellant’s original disclosure did not describe the mode of operation as now claimed. The first time that the description “when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) extends at least in part in a vertical direction” appeared was the time of filing of the amendment on April 13, 2009. As noted, Appellant’s drawings are not engineering drawings on scale. In addition, FIGS. 1 and 2 show that Appellant’s shift control device 105, 400, 420, 430, 440 can be mounted at different orientations or angles relative to the handlebar 101 by adjusting the mounting bracket 103. More specifically, the description of the elected species of FIGS. 10 and 11 does not mention about the function stated in claim 25. (Spec. 8 and 9: ¶ 27 and 28). On the other hand, the device 430, 440 shown in FIGS. 10 and 11 can be in a vertical, inclined, or horizontal position relative to the handle bar HB. Therefore, when the device 430, 440 is oriented such that the rotational axis X is vertical, the pivot axis P *may or may not* extend at least in part in a vertical direction.

Our reviewing court in *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) stated: “[t]o establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Inherency, however, may not be*

*established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.*" (Emphasis added). See MPEP § 2112.

In this case, when the device 420, 430 is oriented such that the rotational axis X is vertical, the pivot axis P does *not inherently* extend at least in part in a vertical direction. To the contrary, the pivot axis P can extend in a horizontal direction in a similar manner as the device 105 in FIG. 3, or inclined relative to the horizontal direction as implicitly shown in FIGS. 10 and 11. In other words, the concept set forth in the "wherein" clause of new claim 25 is not conveyed in the original disclosure. See *In re Anderson*, 176 USPQ 331 (CCPA 1973) and *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981) cited in MPEP § 2163.01 *supra*.

In view of the foregoing, claims 25 and 26 are rejected as being lack of written description under 35 USC 112, 1<sup>st</sup> ¶. See MPEP § 2163.01.

- (b) Claims 1, 13, and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, 18, and 19 of copending Application No. 11389658 (hereinafter "Appl. '658").

Although the conflicting claims are not identical, they are not patentably distinct from each other because Appellant used minor different terminology to claim substantially the same invention. *In re Griswold*, 365 F.2d 834, 150 USPQ 804 (CCPA 1966) cited in MPEP § 804.02. See also *Takeda Pharmaceuticals Co. v. Doll*, 90 USPQ2d 1496 (Fed. Cir. 2009) (The doctrine of non-statutory or "obviousness-type" double patenting prevents a patentee from writing claims in a second application "so alike" the claims in the original patent such that "granting both exclusive rights would effectively extend the life of patent protection").

Please see the comparison among claims 1, 8, 18, and 19 of Appl. '658 and claims 1, 13, and 18 of this application below:

<u>Common</u>	<u>Appl.'658</u>	<u>Appl.'702</u>
shift control device (105)		
control body (170)	cls. 1, 8, 18, 19	cl. 1
(rotational) axis (X)	cls. 1, 8, 18, 19	cl. 1
mounting member (103)	cls. 1, 8	
handlebar mounting axis (HB)		
	operating body (220, Cl. 1) or linear operating body (Cl. 19)	first operating body (220)
abutment (201)	cls. 1, 8, 18, 19	cl. 1
(first) transmission (150)	cls. 1, 8, 18, 19	cl. 1
plurality of ratchet teeth (171)	cls. 1, 8, 18, 19	cl. 1
interface member (202)		
	pivots (cl. 19)	pivot axis (P, cl. 1)
force receiving surface (203), or force finger contact	cls. 1, 18 cls. 8, 19	cl. 1
force applying surface (406)	cls. 1, 8, 18, 19	cl. 1
second operating body (130)	cls. 8, 19	cl. 13
second transmission (160)	cls. 8, 19	cl. 13

From the above comparison, the difference among claims 1, 8, 18, and 19 of Appl.'658 and claim 1 of this application is that claim 1 of this application explicitly claims the pivot axis P of the interface member 202, meanwhile; claim 19 of Appl.'658 does not. However, claim 19 of Appl.'658 implicitly claims the pivot axis P in the recitation “wherein *the interface member pivots* so that the operating force applying surface applies an operating force to the abutment of

the linear operating body” (emphasis added) in lines 7-11. To the extent that claim 1 of Appl.’658 further recites “the axis (X) is oriented substantially perpendicular to the handlebar mounting axis (HB),” this feature is also claimed in claim 18 of this application. On the other hand, the handlebar is merely an intended use element in Claim 1 of Appl.’658 as recited in the “adapted to” clause in line 4 of claim 1 of Appl.’658. It is well settled that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform, thus, it does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138 (CCPA 1946).

As evidenced from FIGS. 1-3 of Appl.’658, the position of the mounting member 103 can be adjusted by rotating or turning the mounting sleeve 103A relative to the handlebar 101. When the position of the member 103 is adjusted, the angle defined by the handlebar mounting axis HB (*i.e.*, the axis of the sleeve 103A, see FIGS. 1-3 of the Attachment hereinafter “Att.”) and the rotational axis X (FIG. 3 of Att.) is adjusted therewith.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange or adjust the position of the mounting member 103 claimed in this application such that the angle defined by the handlebar mounting axis HB and the rotational axis X is substantially 90°, *i.e.*, to make the axis HB substantially perpendicular to the axis X as claimed in claim 1 of Appl.’658 in order to facilitate the operation of the control device for the rider as taught or suggested by common knowledge in the art. The modification of the claimed shift control device by adjusting or rearranging the positioning of the mounting sleeve so that the axes HB and X would be substantially perpendicular to each other would not have been uniquely challenging to a person of ordinary skill in the art because it is no more than “the simple

substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement" *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) and because it "does no more than yield predictable results." *KSR* at 1739.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

- (c) Claims 1-8 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shahana (EP 1134158).

As noted, EP 1134158 claims the priority based on US Application No. 09/527,759. The Appl.'759 was issued as USP 6,450,060 and is now the subject matter in the reissue Appl.'658. The drawings in EP 1134158 are identical to the drawings in USP'060. The Examiner uses the drawings in USP'060 in the Attachment (hereinafter "Att.") to avoid redundancy.

Claim 1

Shahana teaches a bicycle shift control device 105 which operates a shifting mechanism via a shift control cable 104, the shift control device 105 comprising:

a mounting member 103 *structured to mount the shift control device 105 to a handlebar 101*, wherein the mounting member 103 defines a handlebar mounting axis (HB, see FIGS. 1-5 in Att.);

a control body 170 supported by the mounting member 103 and rotatable about a rotational axis (X in Att.) for controlling the shift control cable 104;

a first operating body 220 having an abutment 201 in a position spaced apart from the control body 170 and which is coupled to the shift control device 105 for displacement between a first home position and a first shift position;



a first transmission 150 which converts the displacement of the first operating body 220 from the first home position to the first shift position into a rotational displacement of the control body 170, wherein the first transmission 150 includes a plurality of ratchet teeth 172, 173; an interface member 202 movably mounted relative to the first operating body 220 and having an operating force receiving surface 203 (FIG. 3) and an operating force applying surface 204 (FIGS. 4 and 5),

*wherein* the operating force receiving surface 203 is *adapted* to receive an operating force from a rider;

*wherein* the interface member 202 pivots around a pivot axis (P, see FIG. 3 of Att.) so that the operating force applying surface 204 applies the operating force to the abutment 201 of the first operating body 220 for moving the first operating body 220 from the first home position to the first shift position;

*wherein* the pivot axis (P, FIG. 3 of Att.) is capable of being *inclined* relative to the handlebar mounting axis HB (FIGS. 1-3. *Ibid.* ¶¶16 and 17, claim 3); and

*wherein* the interface member 202 moves in a direction toward a plane (PL, FIG. 3 of Att.) that contains the handlebar mounting axis HB (FIG. 3) and is parallel with the rotational axis (X) when the first operating body 220 moves from the first home position toward the first shift position.

As noted, FIGS. 1-7 of Shahana are *substantially* identical, if not identical to the species of FIGS. 1-7 of this application. In other words, Shahana teaches the first species of FIGS. 1-7 of this application. Simply put, Shahana substantially teaches the invention as claimed in claim 1

of this application except the pivot axis (P) inclined relative to the handlebar mounting axis (HB) when viewed horizontally.

From FIGS. 1-3, Shahana's pivot axis P is capable of being inclined relative to Shahana's handlebar mounting axis HB when viewed horizontally by rotating or turning the mounting sleeve 103A about the handlebar 101 so that the rider is not required to press perpendicularly to the handlebar without precision placement of the rider's thumb. Shahana, ¶¶ 16 and 17. See legal precedent regarding rearrangement of parts or in MPEP § 2144.04.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the position of the mounting sleeve 103A of Shahana by rotating or turning the sleeve 103A about the handlebar 101 such that the pivot axis P is inclined relative to the handlebar mounting axis HB in order to allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb as taught or suggested by Shahana. *KSR, supra*.

#### Claim 2

The plurality of ratchet teeth 173 are disposed in a ratchet teeth plane T (FIGS. 4 and 5), and wherein the ratchet teeth plane T is parallel to a horizontal axis (H in FIG. 4 of Att.). *Ibid.* claim 4.

#### Claim 3

The plurality of ratchet teeth 173 are disposed in a ratchet teeth plane T (FIGS. 3-5), and wherein a path of movement of the first operating body 220 is *substantially* parallel to the ratchet teeth plane T (FIGS. 3-5).

#### Claims 4 and 5

Shahana teaches the invention substantially as claimed. In addition, Shahana's pivot axis P is positioned at an angle relative to the handlebar mounting axis HB and Shahana's pivot axis P is *substantially* perpendicular to the rotational axis X as shown in FIGS. 1-3. Moreover, Shahana implicitly suggest to rearrange Shahana's axes P, HB and X such that Shahana's pivot axis P is *substantially* perpendicular to the handlebar mounting axis HB and Shahana's pivot axis P is *substantially* parallel to the rotational axis X (by, *e.g.*, adjusting or rotating the mounting sleeve 103A relative to the handlebar 101 as seen in FIGS. 1-3) in order to allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb. Shahana, ¶¶ 16 and 17.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange Shahana's axes such that Shahana's pivot axis is *substantially* perpendicular to the handlebar mounting axis and Shahana's pivot axis is *substantially* parallel to the rotational axis (by, *e.g.*, adjusting or rotating the mounting sleeve 103A relative to the handlebar 101 as seen in FIGS. 1-3) in order to allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb as implicitly taught or suggested by Shahana. *KSR* and legal precedent regarding rearrangement of parts in MPEP 2144.04, *supra*.

Claim 6

The interface member 202 comprises a lever 202.

Claim 7

The lever 202 comprises an operating force receiving member 203 (FIG. 3) extending from the pivot axis (P); and an operating force applying member 204 (FIGS. 4 and 5) extending from the operating force receiving member 203. *Ibid.* abstract.

Claim 8

The pivot axis P is disposed at a junction between the operating force receiving member 203 and the operating force applying member 204 (FIGS. 3-5).

Claim 11

The first operating body 220 (FIG. 3) moves linearly between the first home position and the first shift position. *Ibid.* claims 2 and 6.

Claim 12

The first operating body 220 moves in a straight line (*i.e.*, linearly) between the first home position and the first shift position. *Ibid.* claims 2 and 6.

Claim 13

A second operating body 130 is coupled to the shift control device 105 for displacement between a second home position and a second shift position; and a second transmission 160 converts the displacement of the second operating body 130 from the second home position to the second shift position into a rotational displacement of the control body 170. *Ibid.* abstract and claims 1-7.

Claim 14

The second operating body 130 rotates between the second home position and the second shift position.

Claim 15

The second operating body 130 forms a finger contact part 132 in a position spaced apart from the control body 170 (FIG. 3).

Claim 16

The second operating body 130 rotates around the rotational axis (X in Att.).

Claims 17 and 18

See claims 12, 4, and 5.

Claim 19

The pivot axis P extends through an end portion of at least one of the operating force receiving member 203 or the operating force applying member 204 (FIG. 3).

Claim 20

The operating force receiving member 203 extends away from the pivot axis P as seen in FIG. 3 in Att., and the operating force applying member 204 extends away from the operating force receiving member 203 and away from the pivot axis P (FIGS. 4 and 5).

Claim 21

See claim 8.

**(10) Response to argument**

**(a) Rejection under 35 U.S.C. § 112**

**Claims 25 and 26**

First, Appellant contended that the added limitation “wherein, when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) extends at least in part in a vertical direction” in claim 25 was added “to instruct one of ordinary skill in the art how to determine infringement.” (Br. p. 4).

The Examiner respectfully submits that Appellant’s line of logic is apparently not in accordance with law. In fact, the law set forth in MPEP 608.01(o) requires the amendments to

be supported by the original disclosure, not by the instruction to determine infringement as quoted below:

New claims and amendments to the claims already in the application should be scrutinized not only for new matter but also for new terminology. While an Appellant is not limited to the nomenclature used in the application as filed, he or she should make appropriate amendment of the specification whenever this nomenclature is departed from by amendment of the claims so as to have clear support or antecedent basis in the specification for the new terms appearing in the claims. This is necessary in order to insure certainty in construing the claims in the light of the specification, *Ex parte Kotler*, 1901 C.D. 62, 95 O.G. 2684 (Comm'r Pat. 1901). See 37 CFR 1.75, MPEP § 608.01(i) and § 1302.01. *Note that examiners should ensure that the terms and phrases used in claims presented late in prosecution of the application (including claims amended via an examiner's amendment) find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description, see 37 CFR 1.75(d)(1). (Emphasis added).*

In the instant case, Appellant failed to point out the support in the written disclosure for the above new claims. See MPEP § 2163.06. A review of the original disclosure shows that the functional limitation in “wherein” clause of claims 25 and 26 is not supported either by the written description and/or drawings as explained above. Hence, the “wherein” in new claims necessitates a new ground of rejection under 35 USC 112, 1<sup>st</sup> ¶.

Second, Appellant asserted that the claims in this application are intended to cover one or more of the embodiments shown in FIGS. 8-11 described in ¶¶ 25-28 of the application and “[t]hose embodiments are an improvement over the *prior art device shown in Figs. 1-7.*” (Emphasis added). (Br. p. 4)

The Examiner respectfully submits that the above assertion is unsupported by the substantial evidence presented in the record. Indeed, on the filing date, Appellant's specification did not admit that FIGS. 1-7 showed the prior art device. To the contrary, *e.g.*, ¶¶ 6-14 on page 3 of the original specification clearly disclosed:

*“FIGS. 1-7 are various views of a particular embodiment of a shift control device 105 according to **the present invention.**”*  
(Emphasis added).

More importantly, Appellant's FIGS. 1-7 were not labeled “PRIOR ART.” Therefore, the Examiner was not notified that FIGS. 1-7 illustrated the prior art device. See *In re Nomiya*, 509 F.2d 566, 571, 184 USPQ 607, 611 (CCPA 1975) (Holding applicant's labeling of two figures in the application drawings as “prior art” to be an admission that what was pictured was prior art relative to applicant's improvement).

Consequently, the Examiner had no reason to treat the embodiment of FIGS. 1-7 as prior art pursuant to MPEP § 2129 when the Examiner made the restriction requirement of election of species on January 2, 2008. The first time Appellant admitted that FIGS. 1-7 showed the prior art was apparently the time Appellant filed the Pre-appeal Brief Request for Review on September 9, 2009. Please see the last paragraph on page 1 of this Request. If Appellant had disclosed that FIGS. 1-7 showed the prior art device on the filing date, the Examiner would not have required the restriction. Instead, the Examiner would have applied the admitted prior art in FIGS. 1-7 to reject Appellant's claims pursuant to MPEP § 2129.

Third, Appellant contended: “it *should be* clear that claim 25 recites a *subset* of inclinations wherein, when the device is oriented such that the rotational axis (X) is vertical, the

pivot axis (P) extends at least in a vertical direction, and one of ordinary skill in the art *would* immediately know that the applicant had possession of such an invention.” (Br. pp. 4 and 5).

As noted above, “to establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily present in the thing described in the reference*, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. *The mere fact that a certain thing may result from a given set of circumstances is not sufficient.*” *In re Robertson*, *supra*.

Here, Appellant admitted that “it *should be* clear that claim 25 recites a *subset* of inclinations.” Simply put, Appellant admitted that there is a probability or possibility that when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) *may not* extend at least in a vertical direction. Hence, Appellant failed to prove the alleged inherency added in claim 25. It is well settled that after the filing date, the recitation drawn to a specific subset within a full spectrum of possible subsets disclosed in the original disclosure is considered to be new matter. See *In re Smith*, 173 U.S.P.Q. 679 (CCPA 1972) and *Ex parte George*, 230 U.S.P.Q. 575, 578 (Bd. Pat. App. & Inter. 1986).

Assuming *arguendo* that the alleged subset was inherently present in original disclosure, MPEP § 608.04(a) states:

Matter Not in Original Specification, Claims, or Drawings Matter not in the original specification, claims, or drawings is usually new matter. Depending on circumstances such as the adequacy of the original disclosure, *the addition of inherent characteristics such as chemical or physical properties, a new structural formula or a new use may be new matter*. See *Ex parte Vander Wal*, 109 USPQ 119, 1956 C.D. 11, 705 O.G. 5 (Bd. App. 1955) (physical properties), *Ex parte Fox*, 128 USPQ 157, 1960 C.D. 28, 761 O.G. 906 (Bd. App. 1957) (new formula) and *Ex parte Ayers*, 108 USPQ 444 (Bd.



App. 1955) (new use). For rejection of claim involving new matter, see MPEP § 706.03(o).  
(Emphasis added)

In the case at hand, the original specification is silent about the function “when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) extends at least in part in a vertical direction.” Hence, the addition of the alleged inherent functional limitation may be new matter.

In addition, MPEP § 608.01(h) states:

If the best mode contemplated by the inventor at the time of filing the application is not disclosed, *such defect cannot be cured by submitting an amendment* seeking to put into the specification something required to be there when the application was originally filed. *In re Hay*, 534 F.2d 917, 189 USPQ 790 (CCPA 1976). Any proposed amendment of this type should be treated as new matter.

If the added “wherein” clause would be important to the Appellant “*in order to instruct one of ordinary skill in the art how to determine infringement*,” Appellant should have described that feature when the application was originally filed.

In view of the foregoing, the Examiner respectfully submits that this ground of rejection should be sustained.

**(b) Rejection under Non-statutory Obviousness-type Double Patenting**  
**Claims 1, 13, and 18**

First, Appellant assumed that the Examiner meant that the fixing bolt could be loosened so that mounting sleeve (103A) releases its grip on handlebar (101), and then mounting member (103) can be rotated (turned) coaxially around handlebar (101) (rotated or turned clockwise or counterclockwise in Figs. 4 and 5 in Appl. '658). (Br. pp. 6 and 8)

The Examiner agreed that Appellant's assumption is correct. In fact, as seen in Appellant's FIGS. 1-3 and described in the specification, the position of the mounting member 103A, 103 is not fixedly attached to the handlebar 101. The axis HB of the handlebar can also be changed by adjusting the position of the handlebar or by the curvature of the handlebar. (Shahana p. 3, ¶7.) Please see different designs of the handlebars in the patents classified in class 74, subclasses 551.1-551.8 of the Office. On the other hand, Appellant's claims do not require the mounting member to be fixedly attached to the handlebar 101. Therefore, the mounting member 103A, 103 is capable of being adjusted by, *e.g.*, the operation described by Appellant above.

Second, Appellant contended that: (a) the pivot axis P in Appl.'658 will *never* become inclined relative to the handlebar axis X by rotating the mounting member 103; (b) claim 1 of this application recites "wherein the *pivot axis (P)* is inclined relative to the handlebar mounting axis (HB)"; and (c) there is no reason to modify the pivot axis (P) in Appl. '658 to be inclined relative to handlebar axis (HB) as required by claim 1. (Br. pp. 6 and 7)

The Examiner respectfully disagrees that the pivot axis X will *never* become inclined relative to the handlebar axis X. As evidenced from FIG. 3, the axis P would intersect the axis X. In the absence of an explicit exclusion described in the specification, the angle defined by axes X and P can be an inclined angle. Indeed, Appellant admitted in the last paragraph on page 7 of the amendment filed on June 3, 2008 that "[c]laim 1 has been amended to clarify that the pivot axis (P) is inclined relative to the handlebar mounting axis (HB) *when viewed horizontally*. *That is, when viewed as shown in Figs. 2 and 4, and not when viewed vertically as shown in Fig. 3.*" (Emphasis added).

In addition, Appellant's FIGS. 2 and 4 are virtually identical to FIGS. 2 and 4 shown in EP'158 or US Pat.'060 issued to Shahana. Common sense or common knowledge in the art teaches that if the pivot axis P claimed in this application is inclined relative to the handlebar mounting axis HB when viewed horizontally as admitted, the pivot axis P disclosed in EP'158 or Pat.'060 is similarly inclined. It is well settled that structural similarities have been found to support a *prima facie* case of obviousness. *In re Merck & Co.*, 800 F.2d 1091, 1096-97, 231 USPQ 375, 378-79 (Fed. Cir. 1986) and cases cited in MPEP 2144.08. Simply put, Shahana's pivot P is similarly inclined relative to the handlebar mounting axis HB in the same manner as Appellant's axes based on the similarities shown in these FIGS. 1-7 and based on Appellant's admission about the inclination of the pivot axis P in FIGS. 2 and 4 made on page 7 of the amendment filed on June 3, 2008.

Assuming *arguendo* that the rotation of the mounting member 103, 103A would not change the angles defined by the axes P and X, the axes P and X inherently define an angle of a predetermined/certain degree. To change the range of the predetermined degrees of this angle such that the axes P and X are inclined relative to each other would have been a matter of choice in design obvious to one having ordinary skill in the art since the claimed structures and the function they perform are the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) citing *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992). See also legal precedent regarding changes in size or proportion in MPEP § 2144.04.

Third, Appellant asserted that there is no motivation to modify pivot axis (X) in Appl.'658 to be inclined relative to handlebar axis (HB) as required by claim 1. (Br. p. 6)

The reasons for modification of the pivot axis (P) in Appl. '658 to be inclined relative to handlebar axis (HB) as required by claim 1 is, *inter alia*, to allow the shifting operation to be performed without requiring precision placement of the rider's hand. Please see Summary of the Invention of App. '658.

It is well settled that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then, it meets the claim. *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In addition, it is well settled that the claims drawn to an apparatus must distinguish from prior art in terms of structure rather than function. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997); *In re Danly*, 120 USPQ 528 (CCPA 1959); *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987) and MPEP § 2114. Therefore, Appellant's tandem reliance on the alleged different modes of operation of the species of FIGS. 1-7 and the elected species of FIGS. 10 and 11 is unpersuasive.

Moreover, Shahana's FIGS. 4-7 show that the interface member 202 is capable of moving in a direction toward the plane PL that contains the handlebar mounting axis HB and is capable of being parallel with the rotational axis X when the first operating body 220 moves from the first home position toward the first shift position as claimed. In fact, FIGS. 4 and 5 show that: (a) the interface member 202 is moved in a direction toward the plane PL that contains the handlebar mounting axis HB when the operating body 220 moves from the home position (FIG. 6) toward the shift position (FIG. 7); and (b) during the pivotal movement of the interface member 202 in the counterclockwise direction, *i.e.*, from the position in FIG. 4 to the

position in FIG. 5, the member 202 inherently passes the position wherein its axis is parallel to the axis X. Shahana: ¶ 14 and 15.

In summary, claims 1, 13, and 18 of this application are obvious over claims 1, 8, 18, and 19 of Appl.'658 since these claims do not recite patentably distinguishing structures over each other, and since the claimed device in claims 1, 13, and 18 of this application are capable of performing the functions claimed in claims 1, 8, 18, and 19 of Appl.'658 or *vice versa* as evidenced by FIGS. 4-7 of these two applications.

Finally, it is noteworthy to point out that claims 1, 8, 18, and 19 of Appl.'658 were also rejected under judicially created doctrine of obviousness-type double patenting over claims 1 and 13 of this application. Appellant filed the terminal disclaimer on April 21, 2009 to overcome this rejection in Appl.'658. Thus, Appellant *de facto* conceded the validity of this obviousness-type double patenting rejection.

**(c) Rejection under 35 U.S.C. § 103(a) over Shahana**

**Claims 1-8 and 11-12**

First, Appellant admitted that EP 1 134 158 A2 was cited as category X in the European Search Report. Appellant contended that claim 1 does not read on the species of FIGS. 1-7 (Amend. p. 7). However, Appellant emphasized that the claims in this application represent an improvement over the device shown in Figs. 1-7 in that the pivot axis (P) recited in claim 1 is inclined relative to the handlebar axis (HB), and this feature prevents the claims from reading on the embodiment shown in Figs. 1-7. (Br. p. 7)

The Examiner respectfully submits that whether claim 1 reads on the species of FIGS. 1-7 or not is not a material question under 35 USC 103. In determining the differences between

the prior art and the claims, the question under 35 USC 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983) cited in MPEP § 2141.02. In other words, even if the species of FIGS. 1-7 and the elected species of FIGS. 10 and 11 have mutually exclusive characteristics, however, since claim 1 does not recite the mutually exclusive characteristics/patentably distinguishing structures of the species of FIGS. 10 and 11, therefore, claim 1 is not patentable over the species of FIGS. 1-7.

In addition, it is well settled law that obviousness question cannot be approached on basis that skilled artisans would only know what they read in references; such artisans must be presumed to know some thing about the art apart from what the references disclose. *In re Jacoby*, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962).

In the instant case, ¶ 16 of Shahana expressly states that operating force receiving surface (203) of operating tab (202) is inclined relative to a horizontal axis. In addition, as shown in Shahana's FIG. 3, the tab 202 is pivoted by the pivot axis 216 (*i.e.*, the axis P of the interface 202) in the same manner as Appellant's tab 202 in Appellant's FIG. 3. If one makes Shahana's tab 202 inclined relative to the horizontal axis (*i.e.*, handlebar axis) as explicitly suggested by Shahana, one would have to reorient the axis 216 inclined therewith because the axis 216 passing through the openings formed in the tab 202.

Assuming *arguendo* that Shahana does not explicitly teach the rearrangement of the axes P and HB as claimed, the Supreme Court has laid Appellant's arguments to rest by pointing out that while there must be some articulated reasoning with some rational underpinning to support

the legal conclusion of obviousness, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR* at 1396.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.

For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

*Id.* at 1740, 82 USPQ2d at 1396. Hence, the Examiner must ask whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* In the instant case, Appellant's rearrangement of the position of the mounting sleeve 103A relative to the handlebar mounting axis HB or the rearrangement of the axes P and HB provides no more than predictable results. In fact, the instant results are similar to the ones obtained by Appellant's embodiment of FIGS. 1-7. Hence, Appellant's claim 1 is not patentable as a matter of law based on *KSR*.

On the other hand, Appellant's claim 1 does not recite a change of the function performed by the species of FIGS. 1-7 of Shahana's device. Indeed, the non-elected species of FIGS. 1-7 is inherently capable of performing the claimed function as shown in FIGS. 4-7. Indeed, FIGS. 4 and 5 show that: (a) the interface member 202 is moved in a direction toward the plane PL that contains the handlebar mounting axis HB when the operating body 220 moves from the home position (FIG. 6) toward the shift position (FIG. 7); and (b) during the pivotal movement of the

interface member 202 in the counterclockwise direction, *i.e.*, from the position in FIG. 4 to the position in FIG. 5, the member 202 inherently passes the position wherein its axis is parallel to the axis X. Shahana: ¶¶ 14 and 15.

Assuming *arguendo* that claim 1 recites a change in the species of FIGS. 1-7, such change would be merely a variation in the orientation of the axes P and HB. Such modification by the rearrangement of the orientations of Shahana's axes P and HB would have been a matter of choice in design since the claimed structures and the function they perform are the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) citing *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992). Put in another fashion, such change is predictable as evidenced by FIGS. 1-7 of Appellant and Shahana, *a fortiori*, Appellant's claims are unpatentable pursuant to *KSR supra*.

To the extent that Appellant's reliance on the functional statements in the claims, please note that the "wherein" or "whereby" clause that merely states the inherent results of limitations in the claim adds nothing to the claim's patentability or substance. *Texas Instruments Inc. v. International Trade Commission*, 26 USPQ2d 1018 (Fed. Cir. 1993); *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002); and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (Fed. Cir. 2001). Put differently, in order to distinguish over the species of FIGS. 1-7, claim 1 must distinguish in terms of structure rather than function over Shahana. *In re Schreiber*; *In re Danly*; *Ex parte Masham*; and MPEP § 2114 *supra*.

Second, Appellant reiterated, *inter alia*, that the Examiner's modification would change the operation of the device shown in Shahana. (Br. pp. 8 and 9)



The above contention is likewise unsupported by a consideration of Shahana reference in its entirety. Please note that ¶ 17 of Shahana discloses that the path of movement of sliding operating body (220) is substantially parallel to the plane of ratchet teeth (T), *but the path may vary by plus or minus thirty degrees*. If the path of movement of the body 220 is varied by plus or minus 30°, and if the handlebar axis HB is remained fixed (FIGS. 1 and 2), the axis P is varied therewith relative to the axis HB by plus or minus 30° because the axis P is positioned on the plane of the path as shown in FIGS. 3-5. In other words, if one changes the path of Shahana's operating body 220 by plus or minus 30° relative to the plane of the ratchet teeth T of the teeth 171, that path would also be inclined by plus or minus 30° relative to the handlebar mounting axis HB due to the fact that the plane of the axis HB is substantially parallel with the plane of the ratchet teeth 171. Consequently, the user still operates Shahana's device in the species of FIGS. 10 and 11 in the manner shown in Shahana's FIGS. 4-7. Hence, such modification would not change the operation of Shahana's device.

Third, Appellant further contended that a comparison of the species of FIGS. 1-7 and the species of FIGS. 10 and 11 shows that the mode of operation is entirely different from the user's perspective. (Br. p. 10)

On the one hand, the Examiner respectfully submits that the claims do not call for the process of using the device. It is noted that the features upon which Appellant relies, *i.e.*, the process of operating or using of the species of FIGS. 1-7 and the species of FIGS. 10 and 11 (Amend. p. 10) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On the other hand, contrary to Appellant's remarks, in the species of FIGS. 10 and 11, the user moves the lever 434, 444 for pulling and releasing the shift control cable. Meanwhile, in the species of FIGS. 1-7, the user similarly moves the lever 130 also for pulling and releasing the shift control cable. Therefore, the results of the operation of the species of FIGS. 10 and 11 are predictable, *i.e.*, similar to the results of the operation of the species of FIGS. 1-7. Thus, the functional limitations of the species of FIGS. 10 and 11 as claimed would have been unpatentable under *KSR*.

Fourth, Appellant asserted that claim 1 does not read on the species of FIGS. 1-7, thus, the claims in this case are different from the prior art in both structures and functions. (Br. pp. 10 and 11).

The Examiner respectfully submits that Appellant apparently applied the wrong test for obviousness. The court has laid Appellant's arguments to rest by pointing out that, in determining the differences between the prior art and the claims, the question under 35 USC 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. MPEP § 2141.02, *supra*.

In the instant case, the differences of changing the angles defined by the axes P and HB would have been obvious because Shahana explicitly suggests the change of the angle of the path of the operating body 220 relative to the plane of the ratchet teeth T by, e.g., plus or minus 30°. (Shahana ¶ 17). Put differently, it is obvious to try different angles of the path of the operating body 220 relative to the plane of the ratchet teeth T as suggested by Shahana to achieve the inclined angle as claimed. See "Obvious to try" example in MPEP § 2141.

Fifth, Appellant argued about FIGS. 2 and 3 of USP 6,848,335 to Kawakami, FIG. 1 of USP 6,564,671 to Ose, and FIG. 2 of USP 6,155,132 to Yamane, Appellant asserted that none of these references show an interface member as claimed. (Br. pp. 12 and 13)

Please note that Kawakami teaches the interface, such as, 71, 171 inclined relative to the mounting axis of the handlebar, *i.e.*, the axis of the sleeve 32a, 132a as evidenced by, *e.g.*, Kawakami's FIGS. 4 and 5. Similarly, Ose teaches the interface, *e.g.*, 82 inclined relative to the mounting axis of the handlebar, *i.e.*, the axis of the sleeve 54 as evidenced by, *e.g.*, Ose's FIG. 1; and Yamane teaches the interface, *e.g.*, 68 inclined relative to the mounting axis of the handlebar, *i.e.*, the axis of the sleeve 31 as evidenced by, *e.g.*, Yamane's FIGS. 2 and 3. In addition, please note that Kawakami, Ose, or Yamane is used to point out that the inclined interface is well known in the art, meanwhile, Shahana is used to show the claimed breakthrough interface.

#### **Claims 4, 5, and 18**

Appellant alleged that rotating Shahana's mounting sleeve (103A) around handlebar (101) would not change the parallel orientation of pivot shaft (216), and hence pivot axis (P), relative to handlebar mounting axis (HB). (Br. p. 13).

The adjustment or rotating of Shahana's sleeve 103 around the handlebar 101 would change the orientation of the shaft 216 relative to the handlebar 101 and hence the pivot axis P therewith as seen in FIGS. 1 and 2 because the shaft 216 is fixedly attached to the sleeve 103 as seen in FIG. 3.

#### **Claims 7 and 20**

Shahana's force applying member 204 is extended from the force receiving member 203 as seen in FIGS. 4 and 5 of Shahana.

**Claims 25 and 26**

These claims are unsupported by the original record. Therefore, these claims are not patentable for the reasons set forth in MPEP § 2163.01.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's answer.

**CONCLUSION**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Primary Examiner, Art Unit 3656

Appeal conference on January 11, 2010:  
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